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EXAMINER

HAND, MELANIE JO

ART UNIT

PAPER NUMBER

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NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USpatents@armstrongteasdale.com

Office Action Summary	Application No. 10/820,636	Applicant(s) RANGANATHAN ET AL.	
	Examiner MELANIE J. HAND	Art Unit 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,7-15,17-22 and 24-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7-15,17-22 and 24-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species (1) and Group I in the reply filed on June 11, 2008 is acknowledged. The traversal is on the ground(s) that there would not be a serious burden to the examiner to search all groups and species. This is found persuasive and the restriction and election of species requirements have been withdrawn.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3, 9, 11-15, 17, 20-22, 24-26, 28, 29 and 38-43 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki et al (JP 2003-033381 (English translation)).

With respect to **claim 1**: Suzuki teaches a single layer absorbent structure, comprising: a first surface opposite a second surface, wherein the single-layer absorbent structure expands along the second surface defined by component sheet P in the presence of a liquid so that the first surface increases concavity, wherein a pocket-like shape is formed in the presence of the liquid, the single-layer absorbent structure expands to a lesser extent along the first surface (i.e. the inwardly facing surface of component sheet Q) than the single-layer absorbent structure expands along the second surface (i.e. the outwardly facing, concave surface of component sheet P having the larger curvature radius) in the presence of the liquid. With regard to the limitation "the single-layer absorbent structure has a fluid intake rate of about 0.5 cubic

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centimeters per second or greater measured using the Fluid Intake Rate Test”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). The single-layer absorbent structure of Suzuki has a thickness of about 2 mm in a dry state, which falls within the claimed range of about 1 to about 10 millimeters in a dry state. (¶¶0008-0021,0035)

With respect to **claim 3**: The single-layer absorbent structure comprises spunbond film (sheet Q) with superabsorbents (sheet P).

With respect to **claim 9**: With regard to the limitation “the absorbent structure has a basis weight between about 50 and about 1000 grams per square meter”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The basis weight of the claimed structure is considered herein to be an inherent property of the materials used to make the structure. When the structure or composition recited in the reference

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is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). The single-layer absorbent structure of Suzuki has a thickness of about 2 mm in a dry state, which falls within the claimed range of about 1 to about 10 millimeters in a dry state.

With respect to **claim 13**: Suzuki teaches that the first surface defined by sheet Q expands less than the second surface defined by sheet P, thus the second surface comprises at least one region of reduced expansion. The term “region” is given its broadest reasonable interpretation herein, thus encompassing embodiments in which the region has an area less than or equal to the area of the first surface.

With respect to **claim 14**: The at least one region of reduced expansion of sheet Q has been modified by adhesion junctions, i.e. adhesive bonding that bonds sheet P to sheet Q.

With respect to **claim 15**: The second surface defined by sheet P undergoes anisotropic expansion in the presence of a liquid inasmuch as the expansion in the vertical “Z” direction perpendicular to the plane of the article, is greater than the expansion in the x-y plane of the article.

With respect to **claim 17**: Suzuki teaches an absorbent structure, comprising: a first layer Q that expands less than 10% in the presence of a liquid; and an absorbent second layer P bonded to the first layer Q, wherein the absorbent second layer expands by 5 mm or more which is at least 20% of its original thickness, in the presence of the liquid so that the second layer P increases concavity, wherein a pocket-like shape is formed along an interface of the first and second layers Q,P respectively, in the presence of the liquid.

With regard to the limitation “the absorbent structure has a fluid intake rate of about 0.5 cubic centimeters per second or greater measured using the Fluid Intake Rate Test”, the absorbent structure taught by Suzuki comprises a spunbond film (first layer Q) with superabsorbent (second layer P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

With regard to the limitation “the absorbent structure has a basis weight between about 100 and about 1000 grams per square meter”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The basis weight

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of the claimed structure is considered herein to be an inherent property of the materials used to make the structure. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

With respect to **claim 20**: The single-layer absorbent structure of Suzuki has a thickness of about 2 mm in a dry state, which falls within the claimed range of about 1 to about 10 millimeters in a dry state.

With respect to **claim 21**: The first layer Q is comprised of polyethylene, which is elastomeric.

With respect to **claim 22**: With regard to the limitation “the absorbent structure has a basis weight between about 100 and about 1000 grams per square meter”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The basis weight of the claimed structure is considered herein to be an inherent property of the materials used to make the structure. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim

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except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

With respect to **claim 24**: The first layer Q comprises a spunbond material.

With respect to **claim 25**: The absorbent second layer P comprises a superabsorbent film.

With respect to **claim 26**: The absorbent second layer P comprises a superabsorbent material.

With respect to **claim 28**: Suzuki teaches that the first surface defined by sheet Q expands less than the second surface defined by sheet P, thus the second surface comprises at least one region of reduced expansion. The term “region” is given its broadest reasonable interpretation herein, thus encompassing embodiments in which the region has an area less than or equal to the area of the first surface.

With respect to **claim 29**: The at least one region of reduced expansion of sheet Q has been modified by adhesion junctions, i.e. adhesive bonding that bonds sheet P to sheet Q.

With respect to **claim 38**: Suzuki teaches that the absorbent second layer expands by 5 mm or more which is at least 20% of its original thickness, in the presence of the liquid

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With respect to **claim 39**: The limitation of claim 39 is directed to an intended use of the instant article and thus bears little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to **claim 40**: The limitation of claim 39 is directed to an intended use of the instant article and thus bears little patentable weight. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

With respect to **claim 41**: Suzuki teaches a single layer absorbent structure, comprising: a first surface opposite a second surface, wherein the single-layer absorbent structure expands along the second surface defined by component sheet P in the presence of a liquid so that the first surface increases concavity, wherein a pocket-like shape is formed in the presence of the liquid. The single-layer absorbent structure expands to a lesser extent along the first surface (i.e. the outwardly facing surface of component sheet Q) than the single-layer absorbent structure expands along the second surface (i.e. the outwardly facing, concave surface of component sheet P having the larger curvature radius) in the presence of the liquid. With regard to the limitation “the single-layer absorbent structure has a fluid intake rate of about 0.5 cubic centimeters per second or greater measured using the Fluid Intake Rate Test”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent

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structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). The second surface defined by sheet P undergoes anisotropic expansion in the presence of a liquid inasmuch as the expansion in the vertical “Z” direction perpendicular to the plane of the article, is greater than the expansion in the x-y plane of the article. (¶¶0008-0021,0035)

With respect to **claim 42**: Suzuki teaches an absorbent structure, comprising: a first layer Q that expands less than 10% in the presence of a liquid; and an absorbent second layer P bonded to the first layer Q, wherein the absorbent second layer expands by 5 mm or more which is at least 20% of its original thickness, in the presence of the liquid so that the second layer P increases concavity, wherein a pocket-like shape is formed along an interface of the first and second layers Q,P respectively, in the presence of the liquid.

With regard to the limitation “the absorbent structure has a fluid intake rate of about 0.5 cubic centimeters per second or greater measured using the Fluid Intake Rate Test”, the absorbent structure taught by Suzuki comprises a spunbond film (first layer Q) with superabsorbent (second layer P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the

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reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

With regard to the limitation “the absorbent structure has a basis weight between about 10 and about 150 grams per square meter”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The basis weight of the claimed structure is considered herein to be an inherent property of the materials used to make the structure. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). (¶¶0008-0021,0035)

With respect to **claim 43**: Suzuki teaches an absorbent structure, comprising: a first layer Q that expands less than 10% in the presence of a liquid; and an absorbent second layer P bonded to the first layer Q, wherein the absorbent second layer expands by 5 mm or more which is at least

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20% of its original thickness, in the presence of the liquid so that the second layer P increases concavity, wherein a pocket-like shape is formed along an interface of the first and second layers Q,P respectively, in the presence of the liquid.

With regard to the limitation “the absorbent structure has a fluid intake rate of about 0.5 cubic centimeters per second or greater measured using the Fluid Intake Rate Test”, the absorbent structure taught by Suzuki comprises a spunbond film (first layer Q) with superabsorbent (second layer P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980). Only the first layer Q is elastomeric.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 7, 8, 18, 19 and 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki.

With respect to **claim 7**: The absorbent structure of Suzuki expands to a thickness of at least 7 mm, derived from a 2mm thickness in dry state plus a "level difference" of 5 mm or more, wherein level difference is interpreted herein as any additional thickness imparted as a result of swelling. Suzuki does not teach a width of the article, which dictates the subtended angle along with the thickness, however since Suzuki teaches identical materials for the single layer structure, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki so as to arrive at the claimed subtended angle of about 30 degrees to about 180 degrees in the presence of a liquid by modifying the width of the article. Suzuki also teaches that the level difference functions as a guard bank, interpreted herein as a guard against leakage. Thus the subtended angle is considered herein to be a result-effective variable. It has been held that discovery of an optimum value of a result effective variable in a known process is ordinarily within skill of art. *In re Boesch and Slaney*, 205 USPQ 215 (C.C.P.A. 1980)

With respect to **claim 8**: Suzuki does not explicitly teach that the absorbent structure has a radius of curvature of about 38 centimeters or less in the presence of a liquid. However since Suzuki teaches identical materials for the single layer structure, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki so as to arrive at the claimed radius of curvature of about 38 centimeters or less in the presence of a liquid by modifying the width of

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the article, which in turn modifies the associated subtended angle and radius of curvature.

Suzuki also teaches that the level difference (and thus the associated subtended angle and

radius of curvature) provides a guard bank, interpreted herein as a guard against leakage,

wherein level difference is interpreted herein as any additional thickness imparted as a result of swelling. Thus the radius of curvature is also considered herein to be a result-effective variable.

It has been held that discovery of an optimum value of a result effective variable in a known process is ordinarily within skill of art. *In re Boesch and Slaney*, 205 USPQ 215 (C.C.P.A. 1980)

With respect to **claim 10**: Suzuki teaches that the first surface defined by sheet Q is hydrophobic and thus naturally expands less in the presence of a liquid. However, since a hydrophilic sheet treated to become hydrophobic and expand less in the presence of liquid is equivalent to a naturally hydrophobic sheet and provides an identical end product. Since Suzuki teaches hydrophilic sheets that swell for sheet Q as well as hydrophobic sheets, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki such that the first surface is defined by a hydrophilic sheet Q treated to expand less in the presence of a liquid relative to the extent to which the second surface defined by sheet P expands in the presence of a liquid with a reasonable expectation of success to provide a first hydrophobic surface that expands less than the second surface as claimed

With respect to **claim 18**: The absorbent structure of Suzuki expands to a thickness of at least 7 mm, derived from a 2mm thickness in dry state plus a "level difference" of 5 mm or more, wherein level difference is interpreted herein as any additional thickness imparted as a result of swelling. Suzuki does not teach a width of the article, which dictates the subtended angle along with the thickness, however since Suzuki teaches identical materials for the single layer

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structure, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki so as to arrive at the claimed subtended angle of about 30 degrees to about 180 degrees in the presence of a liquid by modifying the width of the article. Suzuki also teaches that the level difference functions as a guard bank, interpreted herein as a guard against leakage. Thus the subtended angle is considered herein to be a result-effective variable. It has been held that discovery of an optimum value of a result effective variable in a known process is ordinarily within skill of art. *In re Boesch and Slaney*, 205 USPQ 215 (C.C.P.A. 1980)

With respect to **claim 19**: Suzuki does not explicitly teach that the absorbent structure has a radius of curvature of about 38 centimeters or less in the presence of a liquid. However since Suzuki teaches identical materials for the single layer structure, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki so as to arrive at the claimed radius of curvature of about 38 centimeters or less in the presence of a liquid by modifying the width of the article, which in turn modifies the associated subtended angle and radius of curvature. Suzuki also teaches that the level difference (and thus the associated subtended angle and radius of curvature) provides a guard bank, interpreted herein as a guard against leakage, wherein level difference is interpreted herein as any additional thickness imparted as a result of swelling. Thus the radius of curvature is also considered herein to be a result-effective variable. It has been held that discovery of an optimum value of a result effective variable in a known process is ordinarily within skill of art. *In re Boesch and Slaney*, 205 USPQ 215 (C.C.P.A. 1980)

With respect to **claim 30**: Suzuki teaches an absorbent structure comprising an absorbent article wherein the absorbent structure includes a first surface opposite a second surface, the absorbent structure expands along the second surface defined by the outward facing surface of

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sheet P in the presence of a liquid so that the first surface increases concavity, wherein a pocket-like shape is formed in the presence of the liquid. The absorbent structure expands to a lesser extent along the first surface defined by an outward facing surface of sheet Q than the absorbent structure expands along the second surface in the presence of the liquid due to the hydrophobicity of the sheet Q and thus the first surface.

With regard to the limitation “the absorbent structure has a fluid intake rate of about 0.5 cubic centimeters per second or greater measured using the Fluid Intake Rate Test”, the absorbent structure taught by Suzuki comprises a spunbond film (first layer Q) with superabsorbent (second layer P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The property of fluid Intake Rate is considered herein to be an inherent property of the materials used. When the structure or composition recited in the reference is substantially identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

With regard to the limitation “the absorbent structure has a basis weight between about 50 and about 1000 grams per square meter”, the single layer structure taught by Suzuki comprises a spunbond film (sheet Q) with superabsorbent (sheet P), thus Suzuki teaches substantially identical materials for the instant single layer absorbent structure. The basis weight of the claimed structure is considered herein to be an inherent property of the materials used to make the structure. When the structure or composition recited in the reference is substantially

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identical to that of the claimed invention, claimed properties or functions are presumed to be inherent. See MPEP §2112-2112.01. A prima facie case of either anticipation or obviousness has been established when the reference discloses all of the limitations of a claim except for a property or function and the examiner cannot determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to the applicant. See *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

Suzuki does not teach an absorbent article comprising a body side liner or an outer cover. However since Suzuki teaches an absorbent structure that functions as an absorbent body, and such articles containing an outer cover, a body side liner and an absorbent article such as that taught by Suzuki positioned between the body side liner and the outer cover and bonded to one or both are well known in the art, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki so as to have an outer cover and a body side liner disposed on the outward facing surfaces of the layer taught by Suzuki, wherein the second surface of the absorbent structure is bonded to the outer cover, with a reasonable expectation of success to provide a thin, highly absorbent article.

With respect to **claim 31**: The absorbent structure of Suzuki comprises a single layer of absorbent material.

With respect to **claim 32**: The single-layer absorbent structure comprises spunbond film (sheet Q) with superabsorbents (sheet P).

With respect to **claim 33**: The first surface is a surface of a first layer Q and the second surface is a surface of an absorbent second layer P that is bonded to the first layer Q. The second layer

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P expands in the presence of a liquid and increases concavity toward the first layer Q along an interface of the first and second layers in the presence of a liquid, and the first layer Q expands to a lesser extent than the second layer expands in the presence of a liquid.

With respect to **claim 34**: The first layer Q comprises a spunbond material.

With respect to **claim 35**: The absorbent second layer P comprises a superabsorbent film.

With respect to **claim 36**: Suzuki teaches that the first surface defined by sheet Q is hydrophobic and thus naturally expands less in the presence of a liquid. Suzuki does not teach that the first surface is treated. However, since a hydrophilic sheet treated to become hydrophobic and expand less in the presence of liquid is equivalent to a naturally hydrophobic sheet and provides an identical end product. Since Suzuki teaches hydrophilic sheets that swell for sheet Q as well as hydrophobic sheets, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki such that the first surface is defined by a hydrophilic sheet Q treated to expand less in the presence of a liquid relative to the extent to which the second surface defined by sheet P expands in the presence of a liquid with a reasonable expectation of success to provide a first hydrophobic surface that expands less than the second surface as claimed.

5. Claims 11, 12, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al in view of Carlucci.

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With respect to **claim 11**: Suzuki does not teach that the first surface is treated by any of the processes set forth in claim 11. Carlucci teaches a single layer absorbent structure having a first surface that expands less than the second surface due to aperturing. Since the article of Suzuki and Carlucci seek to solve a similar problem in the art, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki such that the first surface expands less than the second surface via treatment comprising aperturing as taught by Carlucci with a reasonable expectation of success.

With respect to **claim 12**: Suzuki does not teach that at least one of the first and second surfaces comprises at least one slit to control shaping. Carlucci teaches a first surface that comprises apertures but does not explicitly teach that at least one of the first and second surfaces comprises at least one slit. However, since Carlucci teaches that the apertures may have non-circular shapes and have various dimensions, it would be obvious to one of ordinary skill in the art to modify the structure of Carlucci so as to have apertures in the form of at least one slit with a reasonable expectation of success. The recitation “to control shaping” constitutes functional language that is given little patentable weight herein. (Figs. 4b,c, Col. 9, lines 46-55)

With respect to **claim 27**: Suzuki does not teach that at least one of the first and second surfaces comprises at least one slit to control shaping. Carlucci teaches a first surface that comprises apertures but does not explicitly teach that at least one of the first and second surfaces comprises at least one slit. However, since Carlucci teaches that the apertures may have non-circular shapes and have various dimensions, it would be obvious to one of ordinary skill in the art to modify the structure of Carlucci so as to have apertures in the form of at least

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one slit with a reasonable expectation of success. The recitation “to control shaping” constitutes functional language that is given little patentable weight herein. (Figs. 4b,c, Col. 9, lines 46-55)

With respect to **claim 37**: Suzuki does not teach that the first surface is treated by any of the processes set forth in claim 11. Carlucci teaches a single layer absorbent structure having a first surface that expands less than the second surface due to aperturing. Since the article of Suzuki and Carlucci seek to solve a similar problem in the art, it would be obvious to one of ordinary skill in the art to modify the article of Suzuki such that the first surface expands less than the second surface via treatment comprising aperturing as taught by Carlucci with a reasonable expectation of success.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE J. HAND whose telephone number is (571)272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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